

## PROJECT DESCRIPTION

## I. GENERAL

This project involves the reconstruction of an existing Traffic Control Signal at the intersection of US 50 and MD 452 / Seahawk Rd in Worcester County. The existing strain pole Traffic Signal shall be replaced with a mast arm Traffic Signal. US 50 is assumed to run an east-west direction. Video detectors shall be used on the side streets and for the mainline left turns. Opticom frehouse pre-emption shall be provided for both east and westbound US 50.

## II. INTERSECTION OPERATION

- The intersection shall continue to operate in a NEMA six-phase, fully-actuated mode, with the US 50 approaches running concurrently. Exclusive left turn phases shall continue be provided for both approaches of US 50. The MD 452 / Seahawk Rd approaches shall also continue to run concurrently. MD 452 / Seahawk Rd approaches shall also continue to operate as a side street split phase.
- A full-traffic-actuated, eight-phase controller with one (1) four channel, rack mount loop detector amplifier, housed in a NEMA size "6" base-mounted cabinet shall be installed at this intersection.

## III. SPECIAL NOTES

- The Contractor shall be responsible for terminating all signal cables, to the appropriate terminals and shall properly label each cable.
- All controller cabinet wiring will be performed by the S.H.A. Signal Shop. Contact Mr. Ed Rodenhizer at (410) 787-7650 seventy-two hours in advance of intended work.
- All underground and overhead utilities shown on these plans are schematic only and may not be complete. The Contractor shall be responsible for notifying Miss Utility prior to construction so that all utilities may be located in the field. If the Contractor perceives that a conflict between the utilities and the traffic signal will occur, the Contractor shall notify the Project Engineer immediately so that the conflict may be resolved.
- Upon completion of this project, the Contractor shall notify Mr. Robert Snyder at (410) 787-7631 to arrange for the phone line installation. The Contractor is to provide Mr. Robert Snyder with the nearest street address, zip code and phone number.

## EQUIPMENT LIST

## A. EQUIPMENT TO BE SUPPLIED BY S.H.A.

ITEM NO.	DESCRIPTION	QUANTITY
9042	Controller ASC II with telemetry	1 EA
9044	Controller cabinet, size "6" with detector amplifier and power supply.	1 EA
9086	Video detection interface equipment: 1-4 cameras (to be installed by signal shop).	1 EA
9571	Sheet aluminum signs to consist of: (mast arm or pole mount)	95.5 SF
	D3-2 "Ocean Gateway" sign, (variable x 16") (dual faced), mast arm	1 EA
	D3-2 "(arrow) Friendship RD" (variable x 16") mast arm.	1 EA
	D3-2 "Friendship RD (arrow)" (variable x 16") mast arm.	1 EA
	D3-2 "(arrow) Seahawk RD" (variable x 16") mast arm.	1 EA
	D3-2 "Seahawk RD (arrow)" (variable x 16") mast arm.	1 EA
	R3-5L "LEFT TURN ONLY" sign, (30" x 36") mast arm	1 EA
	GUIDE SHIELD ASSEMBLY (36"x75") pole mounted. M3-4 "WEST"(30"x15") M1-4 "US 50"(36"x36") M5-1 "advance turn arrow" (20"x24")	1 EA
	GUIDE SHIELD ASSEMBLY (36"x75") pole mounted. M3-2 "EAST"(30"x15") M1-4 "US 50"(36"x36") M5-1 "advance turn arrow" (20"x24")	1 EA

## B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	DESCRIPTION	QUANTITY
1001	Maintenance of traffic per assignment.	3 EA
2002	Test Pit Excavation	4 C.Y.
8001	Furnish and install concrete for signal foundation.	11 C.Y.
8004	Adjust existing handhole to grade including collar.	2 EA
8008	Pre-manufactured camera to controller (200' length) cable	1 EA
8009	Pre-manufactured camera to controller (300' length) cable	3 EA
8021	Remove and dispose of existing material and equipment per assignment.	1 EA

## EQUIPMENT LIST (CONT.)

## B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	DESCRIPTION	QUANTITY
8022	Remove and dispose of existing foundation 12" below grade.	5 EA
8027	Disconnect, pull back and reroute cable.	875 L.F.
8033	Furnish and install No. 6 AWG stranded bare copper ground wire.	765 L.F.
8039	Furnish and install 4" schedule 80 rigid polyvinyl chloride conduit - bored.	190 L.F.
8040	Furnish and install 2" schedule 80 rigid polyvinyl chloride - trenched.	80 L.F.
8041	Furnish and install 3" schedule 80 rigid polyvinyl chloride - trenched.	135 L.F.
8042	Furnish and install 4" schedule 80 rigid polyvinyl chloride - trenched.	80 L.F.
8047	Furnish and install electrical utility service equipment (120/240 V, 1 phase 3 wire system).	1 EA
8054	Furnish and install electrical handhole.	2 EA
8057	Install overhead sign.	95.5 S.F.
8058	Furnish and install video detector camera.	4 EA
8059	Furnish and install 3M opticom #76 discrimination module-4 channel.	1 EA
8061	Furnish and install 3M opticom #721 detector eye	2 EA
8064	Furnish and install 27' mast arm pole and 50' (cut to 40') mast arm.	1 EA
8066	27' steel pole and twin 50'/60' mast arms.	1 EA
8076	Furnish and install ground rod - 3/4" x 10'.	4 EA
8078	Furnish and install 12" vehicular traffic signal head section	38 EA
8080	Furnish and install 4-conductor opticom detector cable.	525 L.F.
8081	Cut, clean, galvanize and cap traffic signal structure.	1 EA
8086	Furnish and install electrical cable - 5 conductor (No. 14 AWG).	1810 L.F.
8087	Furnish and install electrical cable - 7 conductor (No. 14 AWG).	470 L.F.
8097	Install controller and cabinet base mount.	1 EA

## C. EQUIPMENT TO BE REMOVED

SHA forces will remove the controller and any auxiliary equipment from the cabinet. The cabinet and all other removed materials shall become the property of the contractor.

The contact persons for District #1 are as follows:

Mr. Gene Cofelli  
Assistant District Engineer - Traffic  
Phone: (410) 677-4040

Mr. Jimmy Wright  
Assistant District Engineer - Maintenance  
Phone: (410) 543-6715

Mr. Bruce Poole  
Assistant District Engineer - Utility  
Phone: (410) 677-4082

Mr. Richard L. Daff, Sr.  
Chief, Traffic Operations Division  
Phone: (410) 787-7630

The power company representative is:

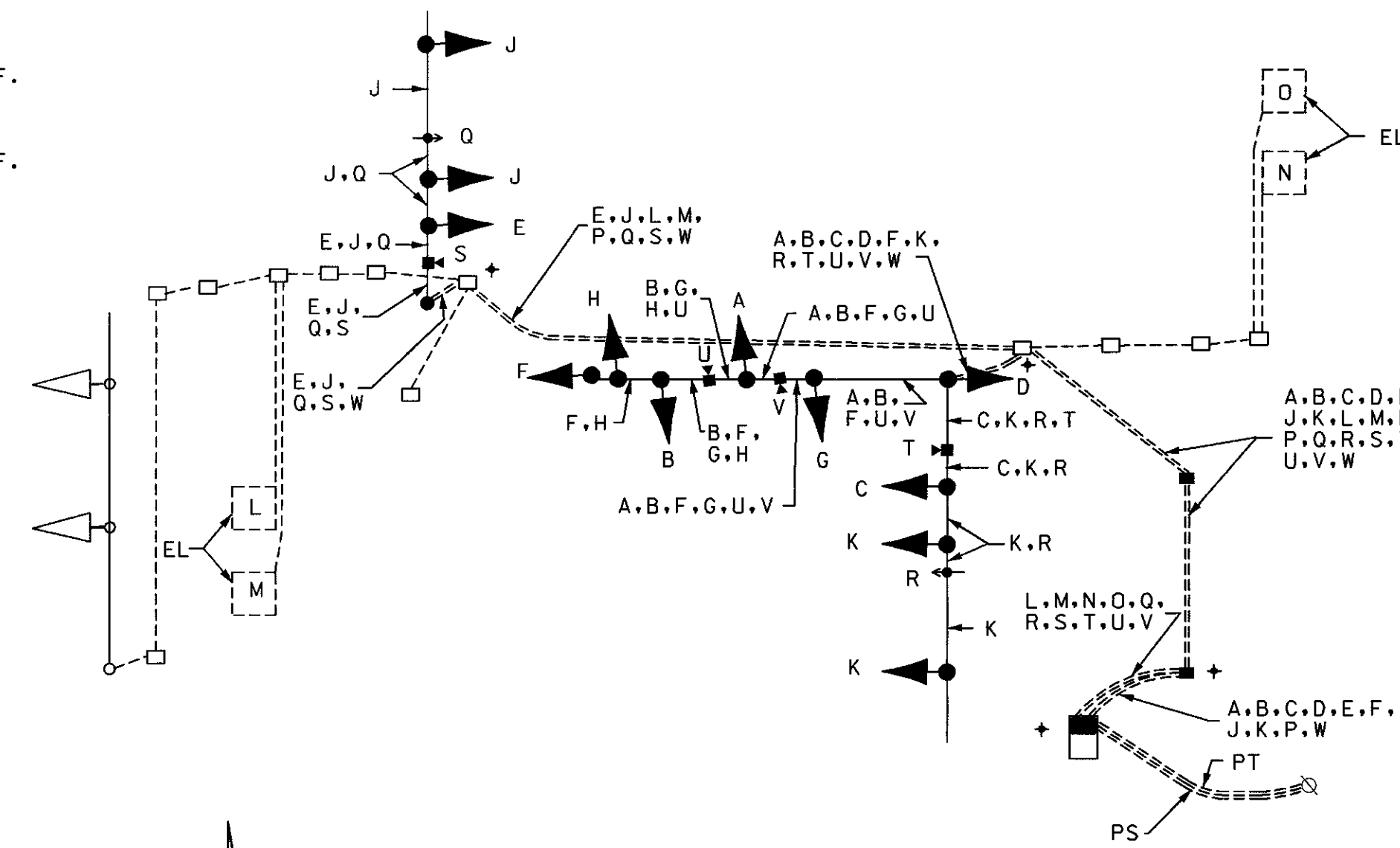
Rodney Bain  
Connectiv  
2530 N. Salisbury Blvd  
Salisbury, MD 21802  
Phone: 410 860-6242

## PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
PHASE 1 & 5	FL/Y	FL/Y	←G-	←G-	R	R	←G-	←G-	R	R	R	R	R	R
CHANGES TO PHASES 1 & 6, 2 & 5 OR 2 & 6														
PHASE 1 & 6	FL/Y	FL/Y	←G-	←G-	G	G	←R-	←R-	R	R	R	R	R	R
1 & 6 CHANGE	FL/Y	FL/Y	←Y-	←Y-	G	G	←R-	←R-	R	R	R	R	R	R
PHASE 2 & 5	FL/Y	FL/Y	←R-	←R-	R	R	←G-	←G-	G	G	R	R	R	R
2 & 5 CHANGE	FL/Y	FL/Y	←R-	←R-	R	R	←Y-	←Y-	G	G	R	R	R	R
PHASE 2 & 6	FL/Y	FL/Y	←R-	←R-	G	G	←R-	←R-	G	G	R	R	R	R
2 & 6 CHANGE	FL/Y	FL/Y	←R-	←R-	Y	Y	←R-	←R-	Y	Y	R	R	R	R
PHASE 3	FL/Y	FL/Y	←R-	←R-	R	R	←R-	←R-	R	R	←G-	←G-	R	R
3 CHANGE	FL/Y	FL/Y	←R-	←R-	R	R	←R-	←R-	R	R	Y	Y	R	R
PHASE 4	FL/Y	FL/Y	←R-	←R-	R	R	←R-	←R-	R	R	R	R	←G-	G
4 CHANGE	FL/Y	FL/Y	←R-	←R-	R	R	←R-	←R-	R	R	R	R	Y	Y
PRE EMPT1	FL/Y	FL/Y	←G-	←G-	G	G	←R-	←R-	R	R	R	R	R	R
PRE EMPT 1 CHANGE	FL/Y	FL/Y	←Y-	←Y-	G	G	←R-	←R-	R	R	R	R	R	R
PRE EMPT 2	FL/Y	FL/Y	←R-	←R-	R	R	←G-	←G-	G	G	R	R	R	R
PRE EMPT 2 CHANGE	FL/Y	FL/Y	←R-	←R-	R	R	←Y-	←Y-	G	G	R	R	R	R
FLASHING OPERATION	FL/Y	FL/Y	FL/←R	FL/←R	FL/Y	FL/Y	FL/←R	FL/←R	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R

NOTE: AFTER PRE EMPTION THE SIGNAL SHALL REVERT TO PHASE 2 & 6.

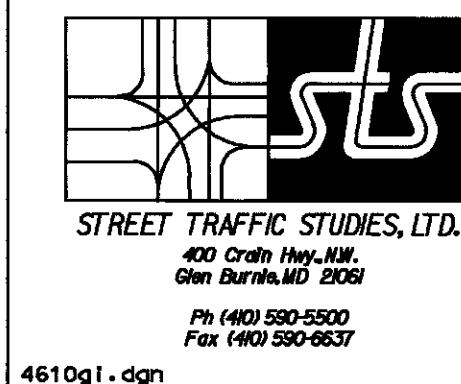
## WIRING DIAGRAM



## WIRING KEY

- A } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- B } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- L } REROUTED 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) ALUMINUM SHIELDED
- M } REROUTED 3-CONDUCTOR ELECTRICAL CABLE
- Q } 4-CONDUCTOR CANOGA CABLE (NO. 14 A.W.G.)
- S } PRE-MANUFACTURED CAMERA TO U) CONTROLLER CABLE (300')
- V } PRE-MANUFACTURED CAMERA TO CONTROLLER CABLE (200')
- W } STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- EL } LOOP WIRE (NO. 14 A.W.G.) EXISTING
- PS } PROPOSED UNDERGROUND SERVICE TO BE INSTALLED BY CONECTIV
- PT } PROPOSED TELEPHONE DROP
- + } GROUND ROD

SHA# W0421A52/B52



**MARYLAND DOT - STATE HIGHWAY ADMINISTRATION**  
**Office of Traffic & Safety**  
**TRAFFIC ENGINEERING DESIGN DIVISION**

US 50 AND MD 452 / SEAHAWK RD  
GENERAL INFORMATION SHEET

DRAWN BY: R CICCHINI	F.A.P. NO.	TS NO.	SHEET NO.
CHECKED BY: R ZACHERL	S.H.A. NO.	TS-506F-G1	
SCALE: N/A	COUNTY: WORCESTER	T.I.M.S. NO. G373	2 OF 2
DATE: 8-31-04	LOG MILE: 23005008.38		